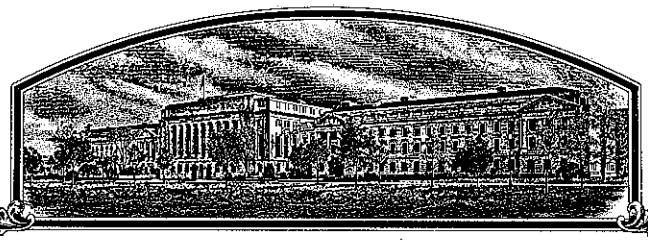

No. 9100076

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Farmers Marketing Corporation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT ETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS Y THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

DURUM WHEAT

'Reva'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington, D.C. *this* 30th *day of* April *in the year of our Lord one thousand nine hundred and* ninety-three.

Attest:

Kenneth A. Evans

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Mike Espy

Secretary of Agriculture

APPROVAL EXPIRES 2-28-88

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)
Farmers Marketing Corporation

2. TEMPORARY DESIGNATION
D5317

3. VARIETY NAME
Reva AAA per letter 24 Feb 1993

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*
P.O. Box 60578, Phx. AZ 85082-0578
5236 S. 40th St., Phx. AZ 85040

5. PHONE *(Include area code)*
(602)437-4058

FOR OFFICIAL USE ONLY

PVPO NUMBER
9100076

6. GENUS AND SPECIES NAME
Triticum turgidum L.
variety durum

7. FAMILY NAME *(Botanical)*
Gramineae

FILING
DATE
January 17, 1991
TIME
☐ A.M. ☐ P.M.

8. KIND NAME
Spring Durum Wheat

9. DATE OF DETERMINATION
August 1989 AAA per letter 24 Feb 1993

FEES RECEIVED
AMOUNT FOR FILING
$ 2150.00
DATE
Jan. 17, 1991
AMOUNT FOR CERTIFICATE
$ 250.00
DATE
March 29, 1993

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*
Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION
Arizona

12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
~~Royce R. Richardson~~
~~P.O. Box 60578~~
~~Phoenix, AZ 85082-0578~~ AAA 6 May 1993
Rex K. Thompson
P.O. Box 60578
Phoenix, AZ 85082-0578
PHONE *(Include area code)*:

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED
a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety *(Request form from Plant Variety Protection Office.)*
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)*
☒ Yes *(If "Yes," answer items 16 and 17 below)* ☐ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☒ Yes ☐ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☒ Foundation ☒ Registered ☒ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ Yes *(If "Yes," give date)*
☒ No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES ?
☐ Yes *(If "Yes," give names of countries and dates)*
☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT
Rex K Thompson
DATE
1-14-91

SIGNATURE OF APPLICANT

DATE

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FORM LS-470 (3-86) *Edition of 7-84 obsolete.*

EXHIBIT A

ORIGIN AND BREEDING HISTORY OF D5317

D5317 durum wheat was derived by Farmers Marketing Corporation from a single F_2 head selection from a genetic male sterile facilitated recurrent selection population. The population was developed by the University of Arizona and released as AZ-MSFRS-86 Quality Enhanced Spring Durum Wheat Germplasm. Seed from a single plant from the F_3 headrow grown in Montana, was increased at El Centro, California in 1986. The bulk F_5 was grown at Yuma, Arizona in 1987. Twenty-four representative heads were snapped and grown in individual rows at Post Falls, Idaho in the summer of 1987. Sixteen uniform non-segretative rows were bulked and increased at Yuma, Arizona in 1988. With evidence of further segregation, forty-eight headrows were grown at Yuma in 1989. Thirty-eight of these rows were bulked and increased at Mt. Vernon, Washington in the summer of 1989 to form the present designated breeder seed for foundation seed production.

D5317 is uniform and stable. Genetic recessive male sterile plants appeared and were rogued from the 1990 foundation seed field increase at frequency of less than 1 in 1000. Some further occurence of male sterility is possible from seed set on unidentified male sterile plants. A brown chaff variant observed in the headrow bulk was rogued from the foundation seed increase field at frequency of less than 1 in 500 plants.

9100076

FARMERS MARKETING CORPORATION

January 6, 1993

Alan A. Atchley, Plant Variety Examiner
Plant Variety Protection Office
U.S.D.A.
NAL Building, Room 500
10301 Baltimore Blvd.
Beltsville, MD 20705-2351

Subject: PVP Application No. 9100076, Durum Wheat Variety D 5317

Dear Mr. Atchley:

In response to your letter of October 9, 1992, to Dr. Royce R. Richardson, I wish to present the following amendments to the P.V.P. application.

1) Application form
-Item 3 - We intend to market the variety under the name "Reva".

-Item 9 - Date of determination was August, 1989.

2) Exhibit "A"
a. Description of progenitors of D 5317 - Germplasm source information attached.

b. Criteria used during selection of D 5317 - In addition to germplasm source information above, objective criteria for selection was semolina quality similar to "Identity Preserved" varieties Westbred 881 and Durex, and increased yield potential, more than Mexicali 75.

c. The number of generations in which stability and uniformity has been observed in D 5317 - Relative yield, plant height, maturity and semolina quality data indicate that D 5317 has remained stable from 1988 through 1992 - five years.

In the 1992 foundation seed production field, genetic recessive male sterile plants were not observed. Brown chaff plants remained in D 5317 at less than 1 in 1000 plants. A black awn, mixture or variant, was observed at 1 in 500 plants.

Mailing Address: Post Office Box 60578, Phoenix, Arizona 85082-0578
3501 East Broadway Road • Phoenix, Arizona 85040 • (602) 437-4058 • FAX: (602) 437-0245

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One hundred headrows were grown and harvested as uniform in 1992 to form the basis of future foundation seed production.

For further information or clarification please contact me. We do need P.V.P. on this variety - please advise if this information is insufficient or do I need to request extension to obtain further data.

Sincerely,

Rex K Thompson

Rex K. Thompson
Plant Breeder

Telephone No. 602/437-4058
Fax No. 602/437-0245

cc: Royce R. Richardson
President, C.E.O.

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GERMPLASM SOURCE INFORMATION FOR REVA (D 5317) DURUM WHEAT

The durum cultivar, Reva (D 5317) was selected from the broad-base, diverse population, Arizona Male Sterile Facilitated Recurrent Selection-1986 (AZ-MSFRS-86) Quality Enhanced Semidwarf Durum Wheat Germplasm.

This durum population was developed over a period of four, 2-generation cycles (4 years and 8 generations), by MSFRS population breeding and from a broad and diversified array of CIMMYT, Northern U.S., Canadian and Italian durums and descendants of their hybridization. These were assembled in 8 years of a conventional pedigree and population breeding program. Large numbers (500 - 1000) of 50% controlled sibs and 50% topcrosses in each spring F_2 populations grown in Southern Arizona. The F_1 was then increased in Montana each summer.

Sibs, male and female, were selected for Agronomic characteristics. Cultivars and lines used for topcrosses were selected for yield and semolina quality characteristics. Among established cultivars most frequently used in repeated topcrossing for semolina quality were Vic, Wakooma, Wascona, Cando, Edmore, Leeds, Lloyd and Westbred 881.

A copy of the Arizona Experiment Station, Notice of Release is attached.

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EXHIBIT B

NOVELTY STATEMENT

D5317 is most similar to Mexicali 75 in plant type and appearance except for the following differences:

1. D5317 has a narrow and long glume beak, 8 mm long. Whereas, Mexicali 75 has a wider and shorter beak, 4 mm long.

2. The glume shoulder of D5317 is relatively narrow and apiculate and Mexicali 75 is square to elevated with wider shoulders.

3. The kernel crease of D5317 is moderately wide and deep with rounded cheeks while Mexicali 75 has a wide and shallow crease with angular cheeks.

4. D5317 has no collar and practically no brush while Mexicali 75 is faintly collared with a short brush.

In addition the following differences are noted in the attached data sheets:

	D5317	Mexicali 75
1. Grain Protein (CA Regional Trials)	15.00%	13.30%
2. Sedimentation (CA Regional Trials)	86	51
3. Overall Quality Score (CA Regional Trials)	3.3	2.2
4. Grain Protein (Barilla Co.)	16.17%	12.89%
5. Gluten Quality Score (Barilla Co.)	10.0/10.0	7.0/6.0
6. Black Point Incidence (U of CA El Centro)	7.6%	13.3%
7. Plant Height at Maturity (16 location years)	83 cm	88.5 cm
8. Fifty Percent Heading-Maturity Days After Jan. 1	84.8	82.3

FORM APPROVED: OMB NO. 0581-0066

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*TRITICUM SPP.*)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)
Farmers Marketing Corporation

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)
P.O. Box 60578, Phoenix, AZ 85082-0578
5236 S. 40th St., Phoenix, AZ 85040

FOR OFFICIAL USE ONLY

PVPO NUMBER 9100076

VARIETY NAME OR TEMPORARY DESIGNATION
D5317

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g. [0][8][9] or [0][9]) when number is either 99 or less or 9 or less.

1. KIND:
[2] 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

2. TYPE:
[1] 1 = SPRING 2 = WINTER 3 = OTHER (Specify) _____
[2] 1 = SOFT 2 = HARD 3 = OTHER (Specify) _____
[3] 1 = WHITE 2 = RED 3 = OTHER (Specify) AMBER

3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:
[1][1][0] FIRST FLOWERING
[1][2][0] LAST FLOWERING

4. MATURITY (50% Flowering):
[ ][ ] NO. OF DAYS EARLIER THAN .....
[0][2] NO. OF DAYS LATER THAN .....
[ ] [7] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS 7 = Mexicali 75

5. PLANT HEIGHT (From soil level to top of head):
[ ][8][3] CM. HIGH
[ ][ ] CM. TALLER THAN .....
[ ][6] CM. SHORTER THAN .....
[ ] [7] 1 = ARTHUR 2 = SCOUT 3 = CHRIS 4 = LEMHI 5 = NUGAINES 6 = LEEDS 7 = Mexicali 75

6. PLANT COLOR AT BOOTING (See reverse):
[1] 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

7. ANTHER COLOR:
[1] 1 = YELLOW 2 = PURPLE

8. STEM:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[2] Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT
[0][4] NO. OF NODES (Originating from node above ground)
[2] Waxy bloom: 1 = ABSENT 2 = PRESENT
[1] Internodes: 1 = HOLLOW 2 = SOLID
[1][4] CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

9. AURICLES:
[1] Anthocyanin: 1 = ABSENT 2 = PRESENT
[1] Hairiness: 1 = ABSENT 2 = PRESENT

10. LEAF:
[1] Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER (Specify): _____
[1] Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT
[2][0] MM. LEAF WIDTH (First leaf below flag leaf)
[1] Flag leaf: 1 = NOT TWISTED 2 = TWISTED
[2] Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT
[2][8] CM. LEAF LENGTH (First leaf below flag leaf)

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11. HEAD:

[2] Density: 1 = LAX 2 = DENSE

[2] Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) _____

[4] Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNED

[1] Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED 5 = BROWN 6 = BLACK 7 = OTHER (Specify): _____

[ ][7] CM. LENGTH. [1][4] MM. WIDTH

12. GLUMES AT MATURITY:

[3] Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.) 3 = LONG (CA. 9 mm.)

[3] Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.) 3 = WIDE (CA. 4 mm.)

narrow

[6] Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED 4 = SQUARE 5 = ELEVATED 6 = APICULATE

[3] Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

13. COLEOPTILE COLOR:

[1] 1 = WHITE 2 = RED 3 = PURPLE

14. SEEDLING ANTHOCYANIN:

[1] 1 = ABSENT 2 = PRESENT

15. JUVENILE PLANT GROWTH HABIT:

[3] 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

16. SEED:

[3] Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

[1] Cheek: 1 = ROUNDED 2 = ANGULAR

[1] Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

[1] Brush: 1 = NOT COLLARED 2 = COLLARED

[ ] Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN 4 = BROWN 5 = BLACK

[2] Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify) _____

[0][8] MM. LENGTH [0][3.5] MM. WIDTH [5][0] GM. PER 1000 SEEDS

17. SEED CREASE:

[1] Width: 1 = 60% OR LESS OF KERNEL 'WINOKA' 2 = 80% OR LESS OF KERNEL 'CHRIS' 3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

[2] Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT' 2 = 35% OR LESS OF KERNEL 'CHRIS' 3 = 50% OR LESS OF KERNEL 'LEMHI'

18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] STEM RUST (Races) _____ [0] LEAF RUST (Races) _____ [0] STRIPE RUST (Races) _____ [0] LOOSE SMUT

[0] POWDERY MILDEW [0] BUNT [2] OTHER (Specify) Moderately field resistance to black point.

19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

[0] SAWFLY [0] APHID (Bydv.) [0] GREEN BUG [0] CEREAL LEAF BEETLE

[0] OTHER (Specify) _____ HESSIAN FLY RACES: [ ] GP [ ] A [ ] B [ ] C [ ] D [ ] E [ ] F [ ] G

20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	Mexicali	Seed size	Mexicali
Leaf size	Mexicali	Seed shape	Mexicali
Leaf color	Yavaros	Coleoptile elongation	---
Leaf carriage	Mexicali	Seedling pigmentation	Mexicali

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggle and L. P. Reitz, 1963, Classification of Triticum Species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

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EXHIBIT D

ADDITIONAL DESCRIPTION

D5317 is a short stiff strawed, early maturing spring durum with excellent semolina quality characteristics of color, protein percent, gluten content, gluten strength, and cooking stability. Yield and test weight is similar to Mexicali 75. Plants are generally 6 cm shorter with less lodging and maturity 2 days later than Mexicali 75. Under environmental conditions subject to severe black point [redacted] exhibited less black point than any of the commonly grown commercial varieties. D5317 BR 1/16/91

Juvenile plant growth habit is erect. Plant at boot is yellow-green. Heads are strap, dense, awned and white at maturity. Glumes are white, glabrous, wide and long. Shoulders are relatively narrow and apiculate. Beaks are acuminate, long and narrow. Seeds are moderately large, elliptical, long, vitreous and amber. The brush is very short and not collared. The crease is of moderate width, medium depth and cheeks are rounded. D5317 has white awns, is similar to Mexicali 75 in appearance and yield, but more similar to Durex and Westbred 881 in semolina quality.

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EXHIBIT F

AGRONOMIC AND QUALITY DATA FOR D5317 DURUM

Table 1 Yield evaluation (18 location years)

	Yield in pounds per acre					
	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
Sacaton AZ 1988	6814	7663	8500	8514	6981	8183
Maricopa AZ 1989	6670	7003	6684	6640	5964	6517
Maricopa AZ 1990	5942	5211	6878	7260	6116	6648
Yuma AZ 1990	6534	7390	6279	7662	6729	7079
U of CA El Centro 1988	8930	9580	9930	9180	8640	9370
U of CA El Centro 1989	7870	8410	9170	8220	7550	8310
U of CA El Centro 1990	8250	8150	9230	8780	8250	--
U of A MAC 1988	5426	5117	5239	5841	--	4197
U of A MAC 1989	8022	6043	4992	7993	6765	--
U of A MAC 1990	5354	4587	4033	6604	4799	--
U of CA Davis 1988	7270	7230	7890	7850	--	6570
U of CA Davis 1989	5440	4870	5950	6080	4140	4630
U of CA Davis 1990	6900	5740	7720	7720	6990	--
U of CA Kings 1988	6800	6560	6980	7500	--	6410
U of CA Kings 1989	2480	2900	3550	3500	2610	3400
U of CA Kings 1990	5900	4800	6190	6640	5440	--
U of CA Delta 1988	7440	7510	8170	7980	7270	7000
U of CA Delta 1989	7730	7880	8120	8000	--	7850
Average	6654	6480	6973	7331	(6303)	(6628)

//

Table 2 Test Weights (17 location-years)

	Test weights in pounds per bushel					
	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
Sacaton AZ 1988	64.5	64.0	66.0	63.0	65.0	66.5
Maricopa AZ 1989	63.5	64.0	65.0	63.0	63.5	64.5
Maricopa AZ 1990	63.0	63.0	65.0	63.0	64.0	64.0
U of CA El Centro 1988	62.5	62.8	64.8	63.0	63.0	63.3
U of CA El Centro 1989	62.8	63.0	65.0	62.3	62.0	63.8
U of CA El Centro 1990	60.5	60.8	63.8	62.0	60.8	--
U of A MAC 1988	65.0	64.0	65.0	65.5	--	64.5
U of A MAC 1989	64.5	63.0	63.5	64.0	64.0	--
U of A MAC 1990	64.0	63.5	63.0	63.5	63.0	--
U of CA Davis 1988	62.6	61.4	64.6	62.6	--	62.5
U of CA Davis 1989	61.0	59.5	64.3	62.5	61.7	62.3
U of CA Davis 1990	63.0	61.1	64.9	63.5	61.2	--
U of CA Kings 1988	62.0	61.0	64.1	62.7	--	63.1
U of CA Kings 1989	49.5	51.7	54.0	54.3	51.6	56.2
U of CA Kings 1990	63.3	62.7	65.3	63.8	62.6	--
U of CA Delta 1988	61.4	61.7	64.5	61.9	--	62.3
U of CA Delta 1989	62.7	62.7	65.5	63.6	61.7	63.8
Average	62.1	61.8	64.0	62.6	(61.9)	(63.0)

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Table 3 Plant Heights (16 location years)

	Plant heights at maturity in inches					
	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
Maricopa AZ 1988	37	37	37	36	36	37
Maricopa AZ 1989	32	37	34	31	35	35
U of CA El Centro 1988	34	36	36	35	34	35
U of CA El Centro 1989	34	37	36	31	36	35
U of CA El Centro 1990	34	36	36	31	36	--
U of AZ MAC 1988	27	29	32	26	--	28
U of AZ MAC 1989	34	37	32	30	34	35
U of AZ MAC 1990	33	37	33	33	35	--
U of CA Davis 1988	38	40	37	34	--	37
U of CA Davis 1989	33	30	36	32	36	36
U of CA Davis 1990	38	40	38	35	40	--
U of CA Kings 1988	36	40	36	36	--	36
U of CA Kings 1989	32	35	35	30	35	33
U of CA Kings 1990	33	35	34	30	35	--
U of CA Delta 1988	38	42	37	35	--	37
U of CA Delta 1989	40	42	40	37	42	39
	34.6	36.9	35.6	32.6	(36.1)	(35.3)
Average in centimeters	83.0	88.5	85.4	78.2	86.6	84.7

Table 4 Lodge Ratings (17 location years)

	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
	Percent lodging at maturity					
Sacaton AZ 1988	0	25	trace	0	0	5
Maricopa AZ 1989	1	30	28	0	0	trace
Maricopa AZ 1990	51	68	65	46	56	54
U of CA El Centro 1988	86	89	83	55	58	80
U of AZ MAC 1988	10	70	0	0	--	0
U of AZ MAC 1989	10	80	80	0	0	--
U of AZ MAC 1990	0	20	30	0	0	--
Average (7 location yrs)	22.6	77.1	41.1	14.4	19.0	27.8
	Lodge rating 1-8, Based on percent lodged at maturity					
Yuma AZ 1989	2.3	--	4.3	--	2.8	2.3
U of CA El Centro 1989	2.3	3.8	3.3	3.0	3.5	2.3
U of CA El Centro 1990	2.3	5.8	5.0	1.0	2.3	--
U of CA Davis 1988	1.0	2.5	1.0	1.0	--	1.3
U of CA Davis 1989	7.5	7.8	7.5	2.5	4.3	7.5
U of CA Davis 1990	6.3	6.5	7.3	2.5	6.5	--
U of CA Kings 1988	7.8	8.0	8.0	5.0	--	8.0
U of CA Kings 1989	6.3	5.5	5.0	2.0	4.5	6.8
U of CA Delta 1988	4.5	3.5	4.5	3.0	--	2.5
U of CA Delta 1989	3.0	2.0	3.3	1.0	2.0	1.0
Average (10 location yrs)	4.3	5.0	4.9	2.3	3.7	4.0
Rank (17 location years)	3	6	5	1	2	4

Table 5 Days from January 1 when 50 percent headed

	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
Sacaton AZ 1988	84	81	83	84	79	84
Maricopa AZ 1989	87	84	89	89	83	86
Maricopa AZ 1990	88	88	92	92	86	87
U of CA El Centro 1988	84	82	88	88	83	81
U of CA El Centro 1989	78	76	79	82	76	76
U of CA El Centro 1990	88	83	89	89	85	--
Average	84.8	82.3	86.3	87.3	82.0	(82.8)

Table 6 Days from January 1 to maturity (combine ready)

	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
Sacaton AZ 1988	126	125	128	129	124	126
Maricopa AZ 1989	134	132	137	139	131	130
Maricopa AZ 1990	136	137	139	138	138	137
U of CA El Centro 1988	137	137	142	142	140	138
U of CA El Centro 1989	120	120	123	123	121	118
U of CA El Centro 1990	133	133	135	137	136	--
Average	131.0	130.6	134.0	134.6	131.7	129.8

Table 7 Black Point (severe conditions in 1989 season)

	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	Westbred 881	Westbred Turbo	D5171-1
Yuma AZ	8.2	--	31.1	--	33.2	29.1	20.7	4.7
U of CA El Centro	7.6	13.3	19.1	18.8	13.0	6.5	9.3	6.5
Average	7.9	(13.3)	25.1	(18.8)	22.1	17.8	15.0	5.6

Table 8 Grain Protein Percent, University of California Regional Trials

	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
U of CA Davis 88	17.3	12.6	15.1	15.1	--	19.2
U of CA Davis 89	14.4	14.2	12.6	14.0	15.8	16.2
U of CA Delta 88	16.3	13.8	13.7	15.0	--	15.5
U of CA Delta 89	14.4	14.1	14.3	14.3	13.8	14.7
U of CA Kings 88	15.2	13.6	13.6	15.4	--	15.2
U of CA Imp. 88	12.2	11.7	12.4	12.2	12.8	12.7
Average	15.0	13.3	13.6	14.3	(14.2)	15.6

Table 9 Sedimentation Rates, University of California Regional Trials

	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
U of CA Davis 88	57	38	43	22	--	40
U of CA Delta 88	104	57	46	22	--	68
U of CA Kings 88	93	62	32	18	--	74
U of CA Davis 89	89	48	43	25	75	50
Average	86	51	41	22	(75)	58

Table 10 Overall Grain and Semolina Quality
U of CA Regional Durum Trials 1988-89*

	Score					
	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
U of CA Davis 88	4	1	1	1	-	4
U of CA Delta 88	4	4	1	4	-	4
U of CA Delta 89	3	2	1	3	4	4
U of CA Kings 88	4	3	1	2	-	4
U of CA Imp 88	2	1	1	1	4	4
U of CA Imp 89	3	2	1	1	4	3
Average	3.3	2.2	1	2.0	(4.0)	3.8

*Evaluation by Hard Red Spring and Durum Quality Laboratory, USDA, North Dakota State University, Fargo, ND.
Score: 1=No promise; 2=Little promise; 3=Some promise; 4=Good promise.

Table 11 Spaghetti Color Scores, University of California Regional Trials*

	Color Score - Highest is best					
	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
U of CA Davis 1988	9.0	8.0	7.5	8.5	--	9.5
U of CA Delta 1988	9.0	9.0	8.0	9.0	--	9.5
U of CA Kings 1988	9.5	9.0	8.0	9.5	--	9.0
U of CA El Centro 1988	9.5	8.5	8.0	9.5	9.5	9.0
U of CA El Centro 1989	9.0	8.0	7.5	8.5	9.0	9.0
U of CA Delta 1989	8.5	8.0	7.5	8.0	9.0	8.0
Average	9.1	8.4	7.8	8.8	(9.2)	9.0

*Evaluation by Hard Red Spring and Durum Quality Laboratory, USDA, North Dakota State University, Fargo, ND.

Table 12 Yuma Arizona, 1988 by General Mills Company

	Hunter Lab Colorimeter Semolina Color*				
	D5317	Mexicali 75	Yavaros 79	Durex	D5171-1
Brightness = L	83.70	83.68	82.69	82.59	82.46
Redness = a	-.13	.33	.35	.11	.13
Yellowness = b	17.24	16.69	15.45	17.24	16.36

*Low redness and high yellowness is desirable.

Table 13 Quality Evaluation, 1988 by Barilla Company, Parma Italy

	D5317	Mexicali 75	Yavaros 79	Aldura	Durex	D5171-1
Black Tip %	7	8	10	6	14	5
Ash, dry basis %	2.09	2.00	1.84	1.96	1.87	1.94
Protein, dry basis %	16.17	12.89	13.90	14.52	16.30	15.72
Gluten, dry basis %	10.82	10.90	4.06	7.15	11.40	12.42
Gluten Quality:						
Barilla Test 0-hr	10.0	7.0	6.0	5.0	8.5	8.5
Score 1-10 24-hr	10.0	6.0	--	3.0	9.0	9.0

EXHIBIT E

STATEMENT OF BASIS OF APPLICANTS OWNERSHIP

Regular employees of the applicant for protection, Farmers Marketing Corporation, have developed the named variety.

Farmers Marketing Corporation is the proprietary owner and intended commercial user of the variety.